Type EZR Pilot-Operated Regulator

SUMMARY

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Figure 1. *Type EZR with OS2 Slam-Shut Valve*

TYPE PRX-120 **TYPE PRX-120/AP**

Figure 2. *PRX Series Pressure Reducing Pilots*

INTRODUCTION

Scope of Manual

This manual provides installation, startup, maintenance and spare parts ordering information for the Type EZR pressure reducing regulator, PRX Series pilots, and Type FU filter.

Product Description

The EZR is a pilot-operated regulator used in transmission and distribution networks or pipe lines supplying industries and commercial businesses.

The EZR can be equipped with a slam shut type OS2 (EZR body change) which permits the gas flow to be cut off rapidly and totally in the case of under or over outlet regulator pressure.

The EZR consists of:

A version without integral slam shut:

- A body («E body» type), a bonnet
- A regulation subassembly consisting of a slotted cage and a diaphragm/plug
- An inlet strainer
- A pilot assembly consisting of a FU filter (filtration 5 microns) and a pilot set to the required outlet pressure

A version with integral slam shut:

- A body («X body» type), a bonnet, a connecting part
- A regulation subassembly consisting of a slotted cage and a diaphragm/plug
- A pilot assembly consisting of a FU filter (filtration 5 microns) and a pilot adjusted to the required outlet pressure
- A removable slam shut seat
- A integral O-ring tightshut valve/bypass assembly
- A release relay type OS2 according to NTAOS2:
  - a mechanism box (BM)
  - a safety manometric box (BMS) to be connected outlet side of the regulator

The **EZR** is in conformity with the Pressure Equipment Directive PED 97/23/EC and is classified in category IV.

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Process Management

Pilot Description

Type PRX Pilot

The Type EZR pressure reducing regulator can be equiped with a PRX series pilot mounted on the Type EZR main valve for pressure reducing or wide-open monitoring applications.

The PRX Series pressure reducing pilots have the ability to handle a wide range of set points ranging from 1 to 80 bar:

- **Type PRX/120**:
  Outlet pressure range of 1 to 40 bar. The Type PRX/120 can be used as the pilot on single stage pressure reducing regulators or as the monitor pilot or as the working pilot in wide-open monitor systems.
- **Type PRX/120-AP**:
  Outlet pressure range of 30 to 80 bar. The Type PRX/120-AP can be used as the pilot on single stage pressure reducing regulators or as the monitor pilot or as the working pilot in wide-open monitor systems.
- **Type PRX/125**:
  Identical to the Type PRX/120 except the restriction screw is removed. The Type PRX/125 can only be used as the monitor override pilot on working monitor applications.
- **Type PRX/125-AP**:
  Identical to the Type PRX/120-AP except the restriction screw is removed. The Type PRX/125-AP can only be used as the monitor override pilot on working monitor applications.

Regulator Options

- Travel Indicator

CHARACTERISTICS

Table 1. *General Characteristics for Type EZR Regulator*

OPERATING PRESSURE			
A352LCC Body, Actuator, Valve, Pilot Body, Slam Shut		PS	72.4 bar
Associated BMS(1), according to size		PSD	10 to 100 bar
BMP(2), according to size			100 bar
Type		DS	Differential strength(3)
OPERATING TEMPERATURE		TS	-17 / 66°C(4)
REGULATOR			
Sizes available		DN	25, 50, 80, 100, 150
European EN Standard			EN 334
Inlet Pressure		Pu	3 to 72.4 bar
Outlet Pressure		Pd	1 to 69 bar
Minimum Differential		ΔP min	2 to 3 bar
Maximum Differential	**PN 20**	ΔP max	18.6 bar
	PN 50		50.0 bar
	PN 100		55.2 bar
Accuracy (optimal)		AC	Up to ± 5%
Lock-Up Pressure Class		SG	Contact factory
Lock-Up Pressure Zone Class		SZ	Contact factory
SLAM SHUT			
European EN Standard			EN 14382
Operation Class			A or B (see fig. 3)
Maximum Operating Differential		ΔP max	69.4 bar
Response Time		ta	< 1 s
Accuracy	**Diaphragm, Bellows**	AG	± 2.5%
	Piston		± 5%
Set Pressure Range		Wdu-Wdo	0.010 to 100 bar
Flow Coefficient		Qf	13
Internal Automatic Bypass		Cg	25
Rearming	Manual after rectification of fault		
Position Indicator	On mechanism box		
Fluid			
Groups 1 and 2 according to PED 97/23/EC, Gas 1st and 2nd family according to EN 437, or other gases (compressed air, nitrogen). **The gas must be non corrosive, clean** (filtration on inlet side necessary) **and dry.**			

(1) BMS - Safety Manometric Box
(2) BMP - Pilot Manometric Box
(3) Depending on choice of BMS and BMP
(4) Standard version

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Material

Regulator

Body	Steel
Bonnet	Steel
Slotted disc	Stainless steel
Diaphragm, O-rings	Nitrile

Slam shut

Connecting part	Steel
Seat	Stainless steel
Valve plug	Stainless steel

Pilot

Body	Steel
Manometric box	Stainless steel or Aluminium

Filter Steel

Connections

Inlet / Outlet: ISO PN 100 B (ANSI 600 RF)
ISO PN 50 B (ANSI 300 RF)
ISO PN 20 B (ANSI 150 RF)
Other possibilities exist (contact factory)
ISO PN 16 B, 25 B, 40 B

Pilot Impulse line (IP): 1/4'' NPT tapped

Pilot Monitor impulse line (IM): 1/4'' NPT tapped

Intermediate impulse line (PI): 1/4'' NPT tapped

Slam shut impulse line: 1/4'' NPT tapped

Mechanism box vent: 1/4'' NPT tapped

Impulse diameter: Pipe interior Ø 8/10 mm minimum

***Table 2**. Flow Coefficients and Valve Plug Travel*

COEFFICIENTS	CAPACITY	DN 25	DN 50	DN 80	DN 100	DN 150
Cg	100%	480	1800	3400	5550	11200
	60%	290	1020	1970	3300	7150
	30%	140	560	970	1690	3570
C1	100%	33	36	37	38	36
	60%	29	28	29	27	30
	30%	30	29	26	26	26
Valve plug travel (mm)		35	35	50	50	50

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***Table 3.** Pilot Pressure Ranges*

TYPE	OUTLET PRESSURE RANGE bar	PILOT CONTROL SPRING INFORMATION	
		Spring Color	Part Number
PRX/120 PRX/125	1.0 to 1.8	Yellow	M0255240X12
	1.8 to 3.0	Green	M0255230X12
	3.0 to 5.5	Blue	M0255180X12
	5.5 to 8.5	Black	M0255220X12
	8.5 to 14.5	Silver	M0255210X12
	14.5 to 23.0	Gold	M0255200X12
	23.0 to 30.0	Aluminium	M0255860X12
	30.0 to 40.0	Red	M0255190X12
PRX/120-AP PRX/125-AP	30.0 to 80.0	Clear	M0273790X12

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LABELLING

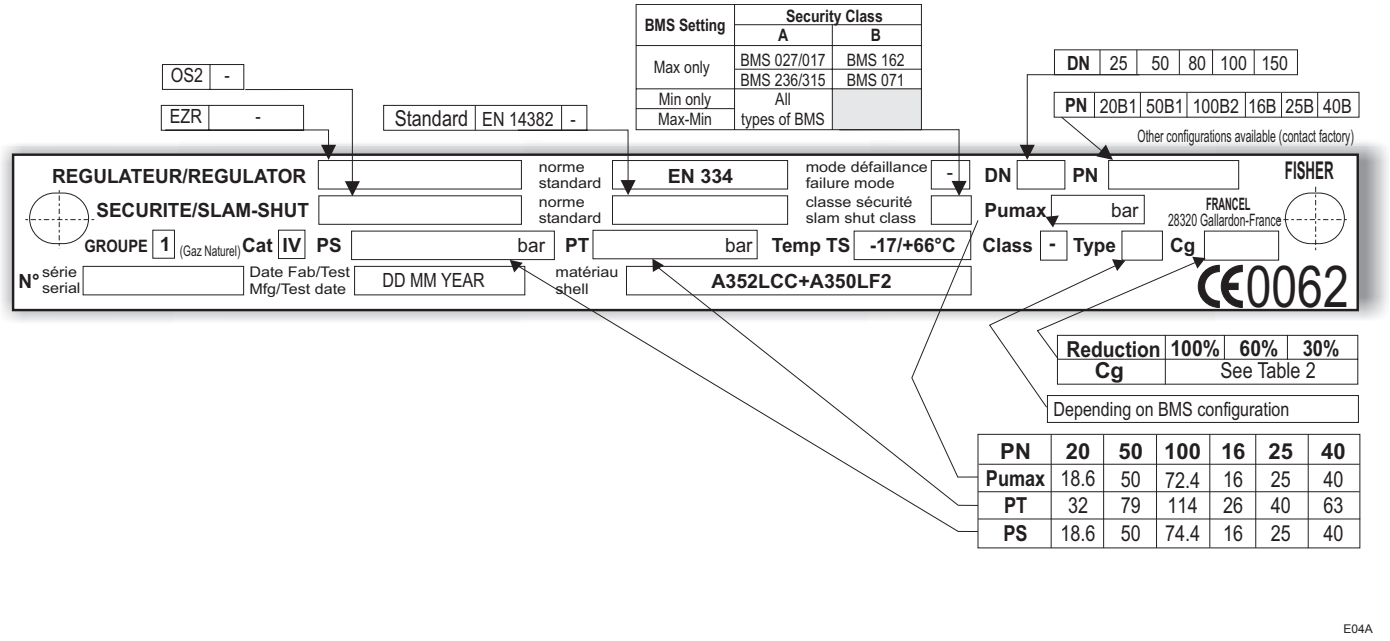

Figure 3. *Label for Type EZR Regulator with OS2 Slam Shut*

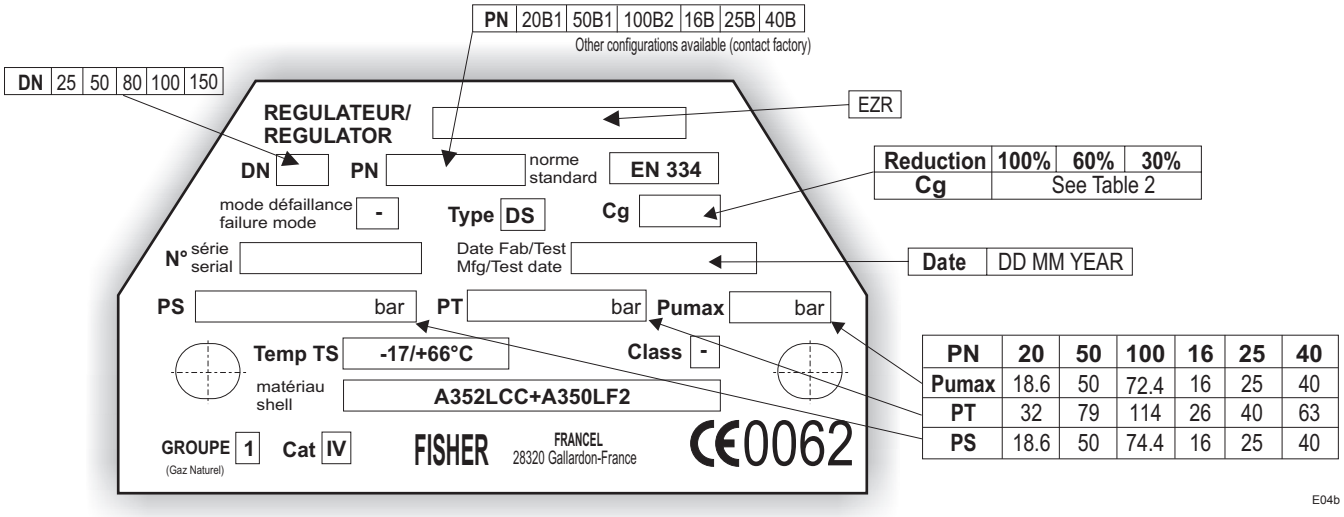
PN 20B1 50B1 100B2 16B 25B 40B
Other configurations available (contact factory)
DN 25 50 80 100 150
REGULATEUR/ REGULATOR
EZR
DN PN norme standard EN 334
mode défaillance failure mode -
Type DS Cg
N° série serial
Date Fab/Test Mfg/Test date
Date DD MM YEAR
Reduction 100% 60% 30%
Cg See Table 2
PS bar PT bar Pumax bar
Temp TS -17/+66°C Class -
matériau shell A352LCC+A350LF2
GROUPE 1 (Gaz Naturel) Cat IV
FISHER
FRANCEL 28320 Gallardon-France
CE0062
PN 20 50 100 16 25 40
Pumax 18.6 50 72.4 16 25 40
PT 32 79 114 26 40 63
PS 18.6 50 74.4 16 25 40
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Figure 4. *Label for Type EZR Regulator*

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DIMENSIONS AND WEIGHTS

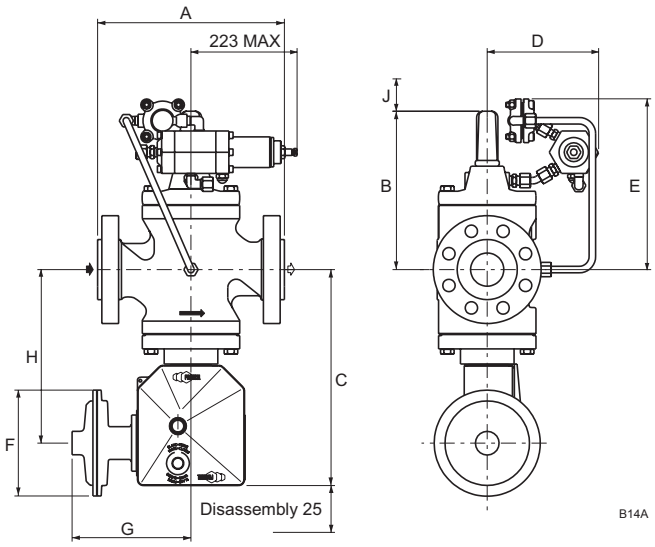

Figure 5. *Type EZR Dimensions with Slam Shut*

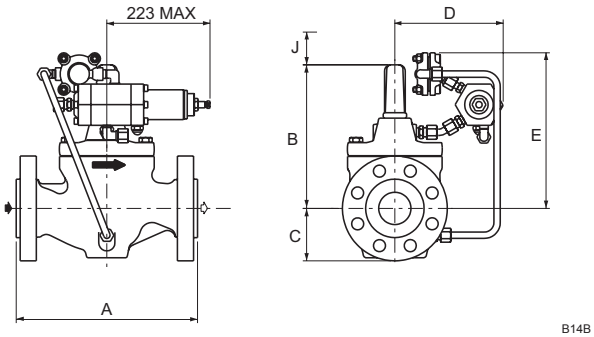

Figure 6. *Type EZR Dimensions without Slam Shut*

Table 4. *Regulator Dimensions with Slam Shut (mm)*

BODY DN	B	C	E	H
25	233	315	252	250
50	243	330	261	265
80	361	366	314	301
100	393	410	358	345
150	423	396	372	332

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Table 7. *Dimensions without Slam Shut (mm)*

BODY DN	B	C	E
25	220	62	239
50	226	83	245
80	343	105	297
100	372	137	336
150	420	178	368

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Table 5. *Regulator Weight with Slam Shut (kg)*

BODY DN	PN 20	PN 50	PN 100
25	20	21	22
50	39	41	43
80	63	69	71
100	104	113	123
150	192	211	244

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Table 8. *Regulator Weight without Slam Shut (kg)*

BODY DN	PN 20	PN 50	PN 100
25	12	14	16
50	26	27	31
80	50	51	57
100	67	73	88
150	97	108	161

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Table 6. *BMS (Safety Manometric Box) Dimensions (mm)*

TYPE	F	G
Diaphragm	162	181
Piston	71	204
Bellows	74	223

B17B

Table 9. *Body Dimensions with/without Slam Shut (mm)*

BODY DN	A			D	J
	PN				
	20	50	100		
25 (1")	184	197	210	173	68
50 (2")	254	267	286	171	68
80 (3")	298	317	337	181	95
100 (4")	352	368	394	177	95
150 (6")	451	473	508	200	95

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PRINCIPLE OF OPERATION

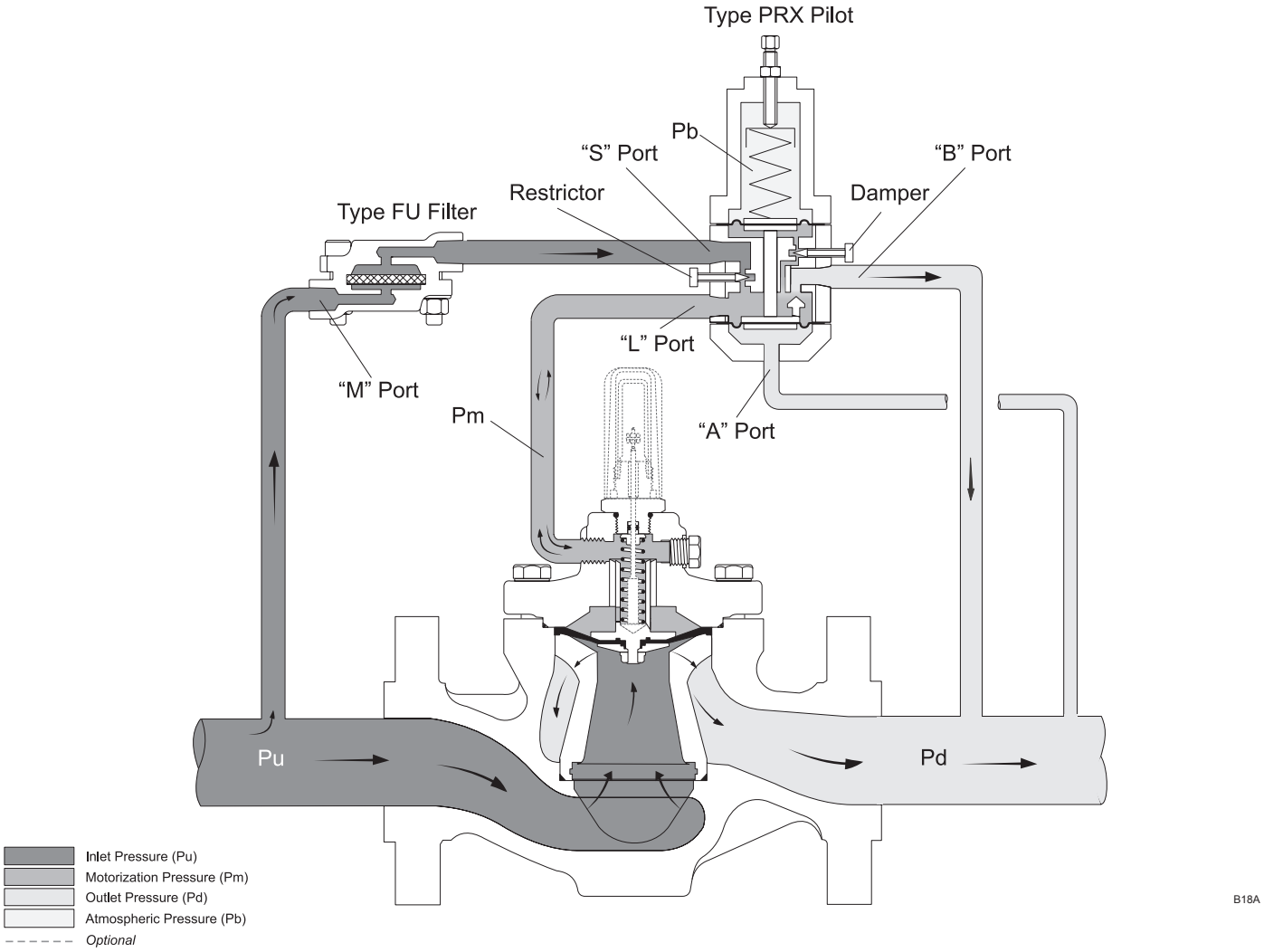

Figure 7. *Type EZR E Body with PRX Pilot*

Regulator

The EZR is a pilot-driven, diaphragm/plug regulator.

Tight shutoff is achieved by the diaphragm/plug pushing against the slotted cage, the force of the closing spring and the inlet pressure.

- **Opening**

  As the flow increases, the outlet pressure Pd decreases on the outlet side of the regulator and on the pilot diaphragm.

  Due to the force of the spring, the pilot opens.

  The pilot flow increases, the pressure loss through the pilot restrictor increases.

  The modulated pressure Pm decreases.

  The force of the closing spring and that of the Pm becomes inferior to that provoked by the Pu, the regulator OPENS.

- **Closing**

  As the flow decreases, the Pd increases outlet side of the regulator.

  The force of the pilot diaphragm is overcome by the force of the spring, the pilot closes.

  The pressure loss through the pilot restrictor decreases.

  The force of the closing spring and that of the Pm becomes superior to that provoked by the Pu, the regulator CLOSES.

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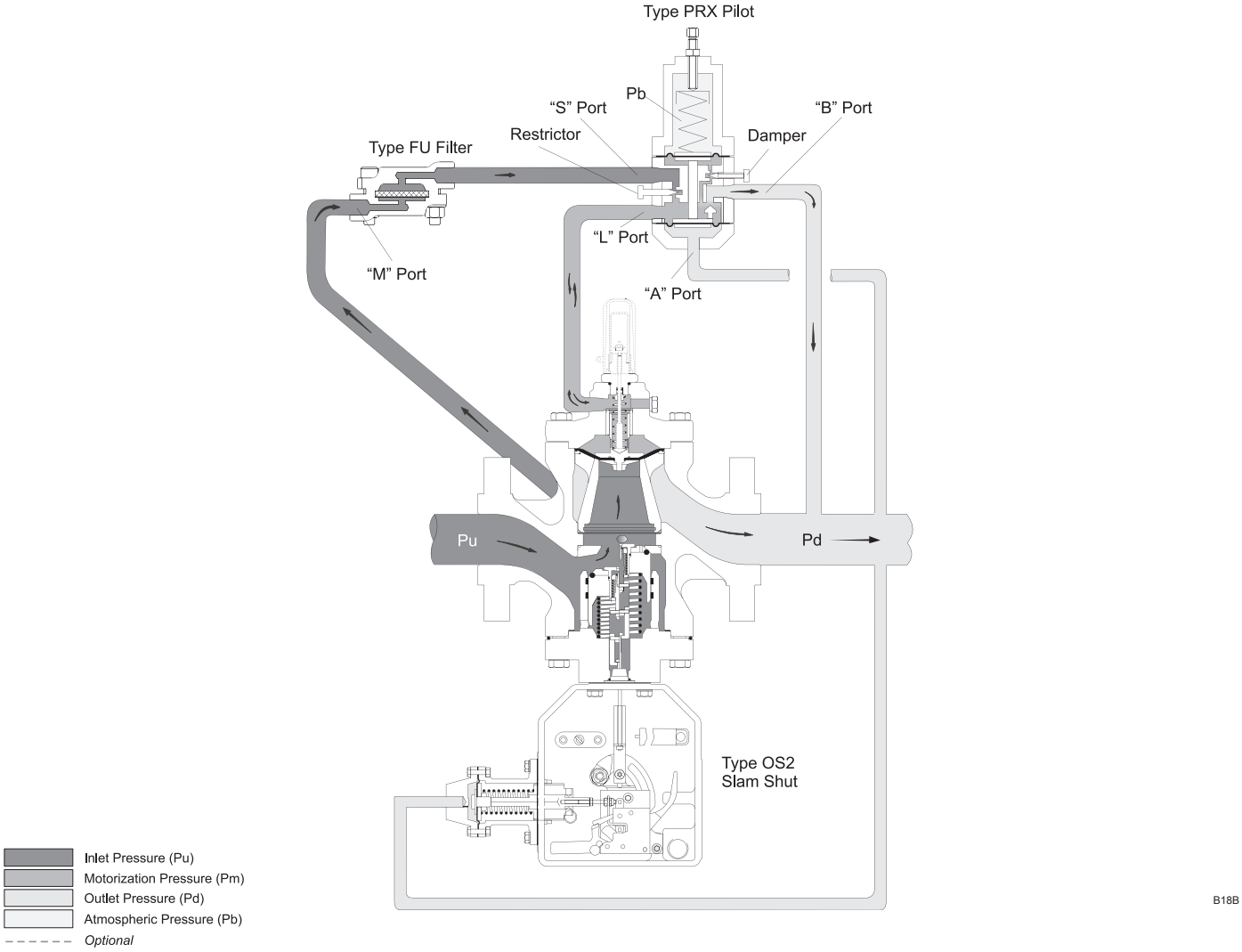

Figure 8. *Type EZR X Body with Integral OS2 Slam Shut and PRX Pilot*

Slam Shut

The pressure of the zone to be protected (generally the pipeline on the outlet side of the regulator and after the slam shut) is sensed by the safety manometric box (BMS).

If the pressure exceeds the set tripping pressure, the release relay frees the valve plug.

Due to the force of the closing spring and the fluid (trying to close), the valve plug closes on the seat.

The gas flow is obstructed until the fault has been corrected and the mechanism box manually rearmed.

To reopen the valve plug an equal pressure balance on inlet and outlet sides of the regulator is required.

The mechanism box is rearmed after opening the internal bypass.

Rearming and balancing are achieved at the same time.

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INSTALLATION

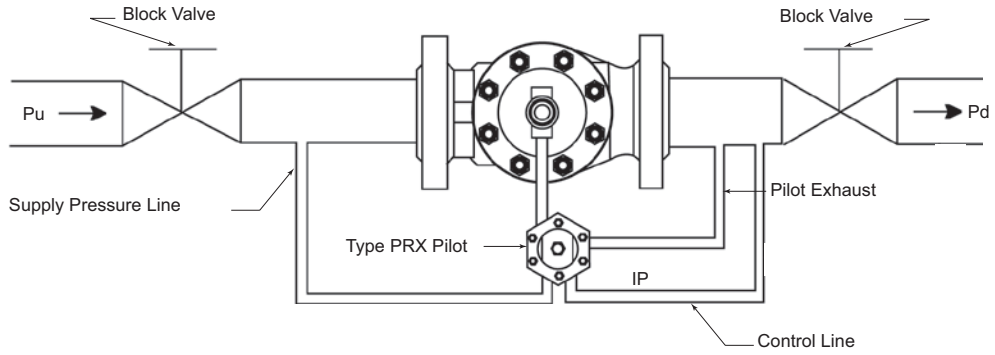

Figure 9. *Type EZR Single Installation with PRX Pilot and Separate Pilot Exhaust Line*

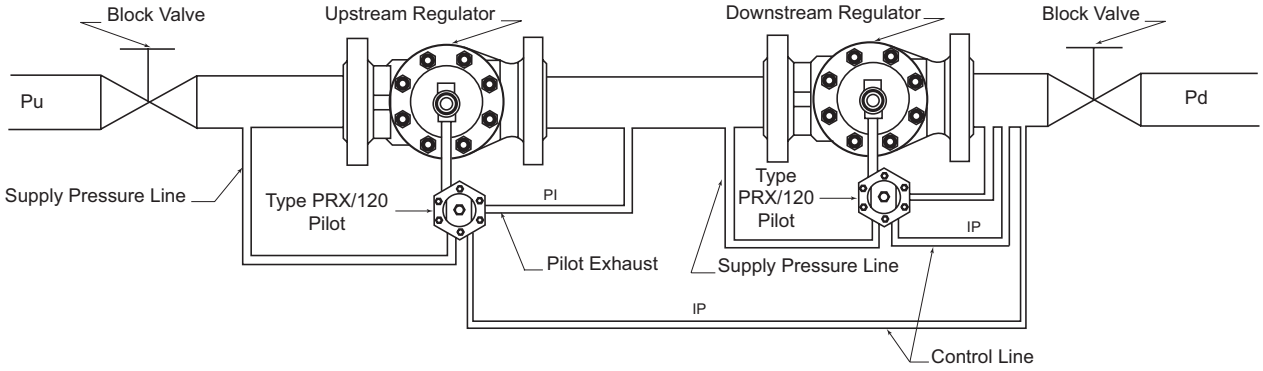

Figure 10. *Type EZR Wide-Open Monitoring System Installation with PRX Pilot (Upstream and Downstream)*

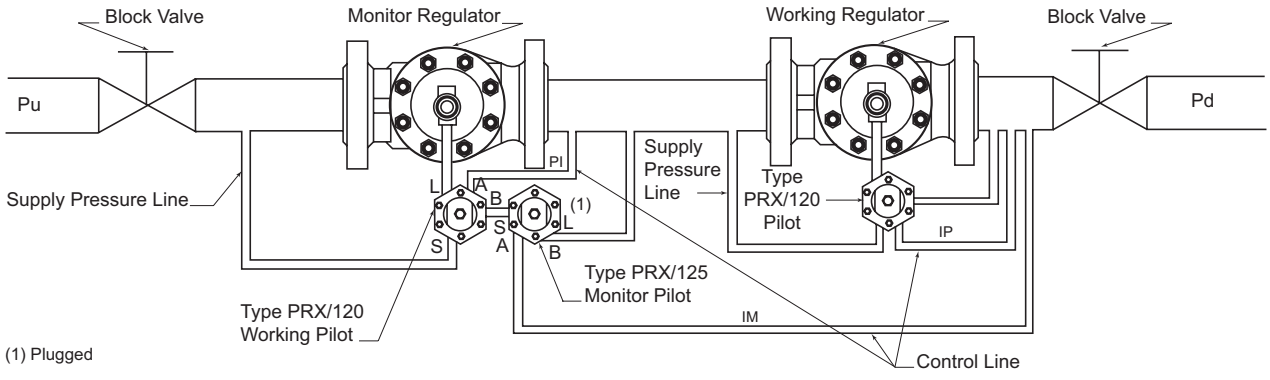

Figure 11. *Type EZR Working Monitor System Installation with PRX Pilots*

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WARNING

Personal injury or equipment damage, due to bursting of pressure-containing parts may result if this regulator is over-pressured or is installed where service conditions could exceed the limits given in the Specification section and on the appropriate nameplate, or where conditions exceed any rating of the adjacent piping or piping connections.

To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices to prevent service conditions from exceeding those limits. Also, be sure the installation is in compliance with all applicable codes and regulations.

Additionally, physical damage to the regulator could break the pilot off the main valve, causing personal injury and property damage due to bursting of pressure-containing parts. To avoid such injury and damage, install the regulator in a safe location.

Only personnel qualified through training and experience should install, operate and maintain a regulator. Before installation, make sure that there is no damage to, or debris in, the regulator. Also make sure that all tubing and piping are clean and unobstructed.

The regulator is installed on horizontal pipeline. For the version with slam shut, the release relay is situated towards the bottom.

Installation according to EN12186 recommended.

The pilot impulse line (IP) must be at 4D on a straight run of the outlet pipe.

When assembling with adjacent elements care must be taken not to create pressure force on the body and the assembling elements (bolts, O-rings, flanges) should be compatible with the geometry and working conditions of the equipment.

If the case arises a support must be used to avoid pressure force on the body (a support can be installed under the flanges).

It is recommended to separate the slam shut impulse line from that of the pilot (IP). Do not connect the impulses on the lower generator line.

No modification should be made to the structure of the equipment (drilling, grinding, soldering...).

It is recommended to install a servicing valve on the outlet pipeline to facilitate adjustments and bleeding off to the atmosphere.

A regulator may vent some gas to the atmosphere. In hazardous or flammable gas service, vented gas may accumulate and cause personal injury, death, or property damage due to fire or explosion.

Vent a regulator in hazardous gas service to a remote, safe location away from air intakes or any hazardous location. Protect the vent line or stack opening against condensation or clogging.

To avoid freeze-up because of pressure drop and moisture in the gas, use antifreeze practices, such as heating the supply gas or adding a de-icing agent to the supply gas.

Verify that the inlet side is protected by an appropriate device(s) to avoid exceeding the limits of utilization (PS, TS).

Verify that the limits of utilization correspond to the appropriate operating conditions.

For the version with integral slam shut, verify that the safety manometric box (BMS) and spring correspond to the appropriate operating conditions on the outlet side of the regulator.

The equipment should not receive any type of shock, especially the release relay.

The user should verify or carry out a protection adapted to the environment.

Fire, seismic and lightening are not taken into consideration in standard regulators. If required, a special product selection and/ or specific calculations may be supplied according to specific requirements.

For the version without integral slam shut, verify that a pressure limiting device on the outlet side of the regulator guarantees a pressure limit inferior or equal to the pilot PS.

STARTUP AND ADJUSTMENT (Figure 12)

Operations concerning the integral slam shut version are in italic.

WARNING

All interventions on equipment should only be performed by qualified personnel

Preliminary Verifications

Start-up positions

- Inlet and outlet valves
  - Closed

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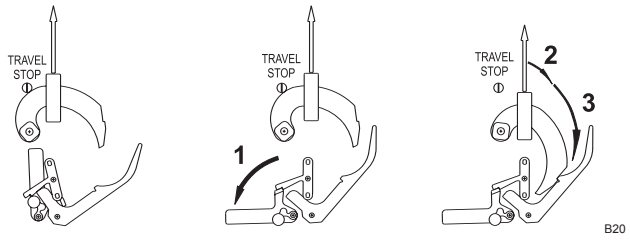
Verify the absence of pressure between inlet and outlet valves

- *Slam shut valve plug*
  - ***Closed***
- PRX Pilot (**A**)
  - Unloaded

Slam Shut Setpoint Verification

Disconnect the BMS impulse, inject a pressure to the BMS equal to the pressure required for the regulator



Triggered position *Stage 1* *Stages 2 and 3*

- *1st release relay stage*
  - *Set (Stage 1)*
- *Slam shut valve plug*
  - *Open (Stages 2 & 3)*
  - *Progressively increase the BMS pressure to reach tripping*
  - *Adjust setting if necessary (NTAOS2)*
    ***Note the set point value on the equipment** or mark it on a commissioning document*

Positions before Startup

- *Slam shut valve plug*
  - ***Closed***
- Servicing valve
  - Closed

The equipment is ready for Startup

Startup **(Act slowly)**

- Inlet valve
  - Open **very** slowly
- *1st release relay stage*
  - *Set (Stage 1)*
- *Slam shut valve plug*
  - *Bypass (Stage 2)*
  - *Adjust PRX setting to increase outlet pressure if necessary*
  - *Open (Stage 3)*
- Servicing valve
  - Open slightly
- PRX Pilot (**A**)
  - Adjust setting to outlet pressure required
- Outlet valve
  - Open slowly
- Servicing valve
  - Closed

The equipment is started

It is recommended to seal the release relay

MAINTENANCE

Operations concerning the integral slam shut version are in italic.

Servicing Check (Figure 12)

Recommended frequency:

- Twice yearly minimum

Verification:

- Set point verification
- Regulator valve plug tightness
- *Tripping and set point value*
- *Slam shut valve tightness*

Departure positions

- Inlet valve ⇨ Open
- Outlet valve ⇨ Open
- *Slam shut valve plug* ⇨ *Open*
- Regulator ⇨ In operation

Inlet and outlet sides of regulator are under pressure

Tight shutoff verification *(and tripping verification for integral slam shut versions)*

- Inlet valve ⇨ Closed
- Outlet valve ⇨ Closed
- Regulator Observe the evolution of the outlet pressure (control regulator tightness)

Filter verification

- Purge the filter (**C**)
- Verify the felt

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***Table 10**. Type PRX Pilot Adjustment Recommendations*

PILOT TYPE	RECOMMENDED TYPE PRX RESTRICTOR AND DAMPER SCREW SETTINGS FOR LOW FLOW OPERATION	TYPE PRX RESTRICTOR AND DAMPER SCREW SETTINGS TO AVOID LOW FLOW OPERATION
PRX/120 and PRX/120-AP Series	**Restrictor Screw (B)** • 1 turn out (counterclockwise) from fully seated for most low flows • 2-1/2 turns out (for flows less than 5% of maximum) **Damper Screw (D)** • Fully out (counterclockwise) from seated for most low flows • One turn out (for flows less than 5% of maximum)	**Restrictor Screw (B)** • Fully seated (clockwise) or full out (counterclockwise) **Damper Screw (D)** • Full in (clockwise)
Note: Counterclockwise adjustment of the Type PRX restrictor screw will increase proportional band. Adjustment of the restrictor screw will also cause a shift in set point. Setpoint should be checked and adjusted following restrictor screw adjustment.		

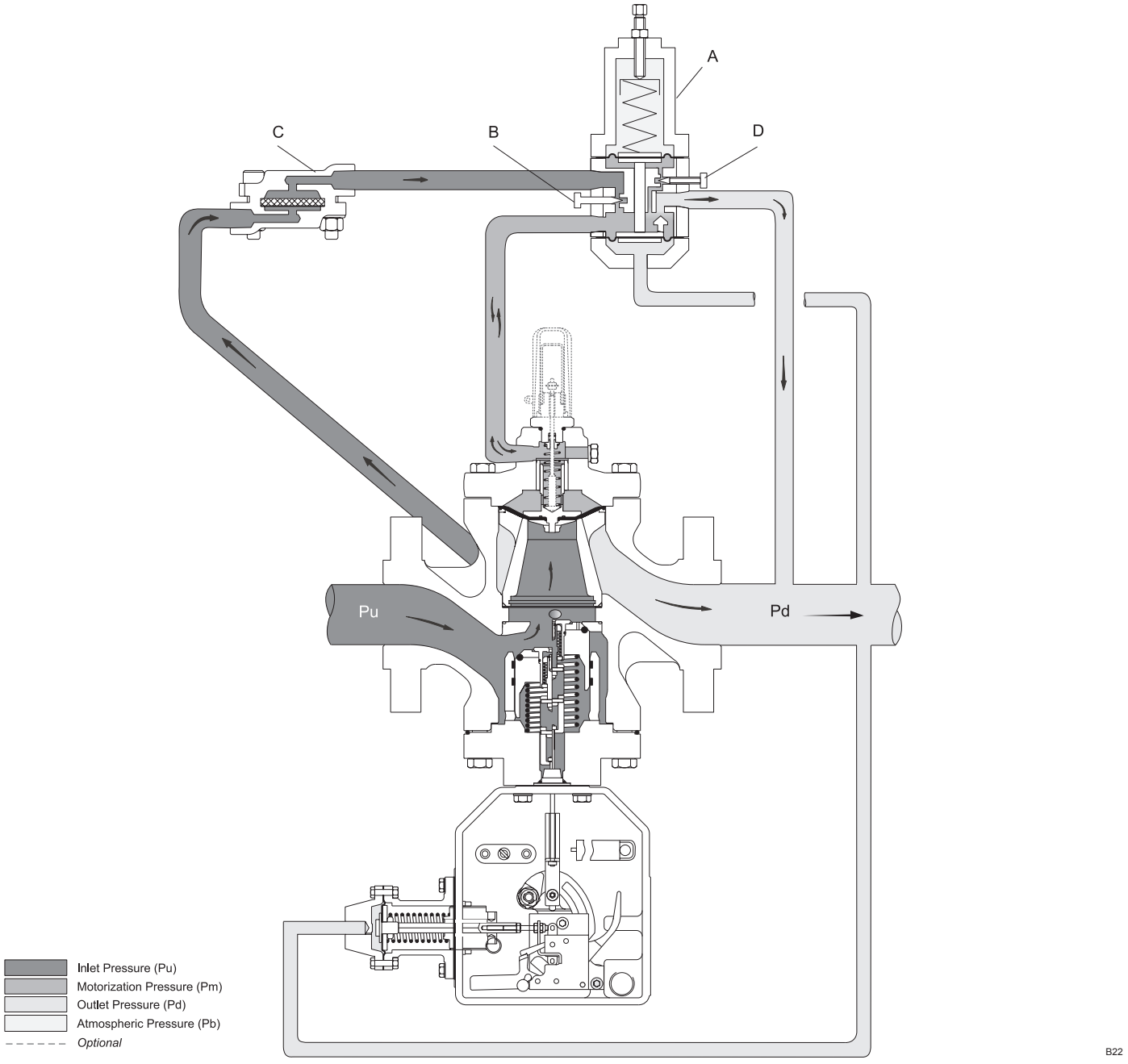

***Figure 12.** Type EZR Startup Schematic*

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Disassembly

Recommended frequency:

Every 2 to 6 years (or less depending on operating conditions)

Verification:

Condition of O-rings, diaphragms, lubrication

Replacement:

O-rings, diaphragm

Tools:

Dimensions according to tables below

Preliminary Operations (Figure 13)

- Valve plug closed
- Inlet and outlet valves closed
- **Bleed off outlet pressure**
- **Bleed off inlet pressure**
- Unscrew the pilot impulse connection
- Unscrew the screws (key 1) fixing the bonnet (key 2)
- Remove plug (key 19) (standard mounting only without indicator)

WARNING

Caution is required when removing this plug as the spring can expulse it

- Remove the bonnet (key 2)
- Remove the diaphragm/plug assembly (key 3)
- Remove the slotted cage (key 4), the O-ring (key 5), the strainer (key 6)
- Clean parts and replace them if necessary

Pilot

- Unscrew the manometric box screws
- Remove the diaphragm

Slam Shut Version

- Unscrew the BMS impulse line connector
- Remove the BM cover (key 7)
- Unscrew the BM fixing screw (key 8)
- Remove the holding pin (key 10)
- Remove the BM (key 9)
- Unscrew the screws (key 11) from the connecting part (key 12)
- Remove the connecting part (key 12)
- Remove the spring (key 13) and the valve plug (key 14)
- Unscrew the bypass (key 15)
- Unscrew the CHC screws (key 16) (DN 100 and 150)
- Removing the seat (key 17) (not recommended) requires a special extraction tool

Reassembly

- Perform the above operations in reverse order (respect tightening torques)
- Replace the O-rings and diaphragm at each disassembly

Slam Shut Reassembly

- The valve plug should be held in an upper position using a packing gland and a box to facilitate reassembly
- Precaution must be taken concerning the passage of the valve plug over the segments
- Lubricate screws before tightening
- Lightly lubricate the O-rings (silicone grease) except for the valve plug O-ring
- Lightly lubricate the stem (silicone grease)
- Lubricate the release relay mechanism (yoke and bolt) (molybdenum graphite grease)
- Lubricate the BMS spring (molybdenum graphite grease)
- A special tool is required for reassembling a new seat

Table 11. *Spanner Sizes*

BODY DN	SCREWS (KEY 1 & 11)	SPANNER (inches)
25 (1")	9/16 - 12 x 1 3/4	13/16
50 (2")	1/2 - 13 x 1 1/2	3/4
80 (3")	5/8 - 11 x 1 3/4	15/16
100 (4")	3/4 - 10 x 2 1/4	1 1/8
150 (6")	1 - 8 x 2 3/4	1 1/2

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Table 12. *Torque Values*

BODY DN	TORQUE N.m.			
	SCREW	FIXATION	CONNECTOR	BYPASS
	KEY 1 & 11	KEY 18	KEY 19	KEY 15
25 (1")	110	8	130	14
50 (2")	110	9	130	14
80 (3")	175	28	280	20
100 (4")	260	28	280	24
150 (6")	510	70	410	24

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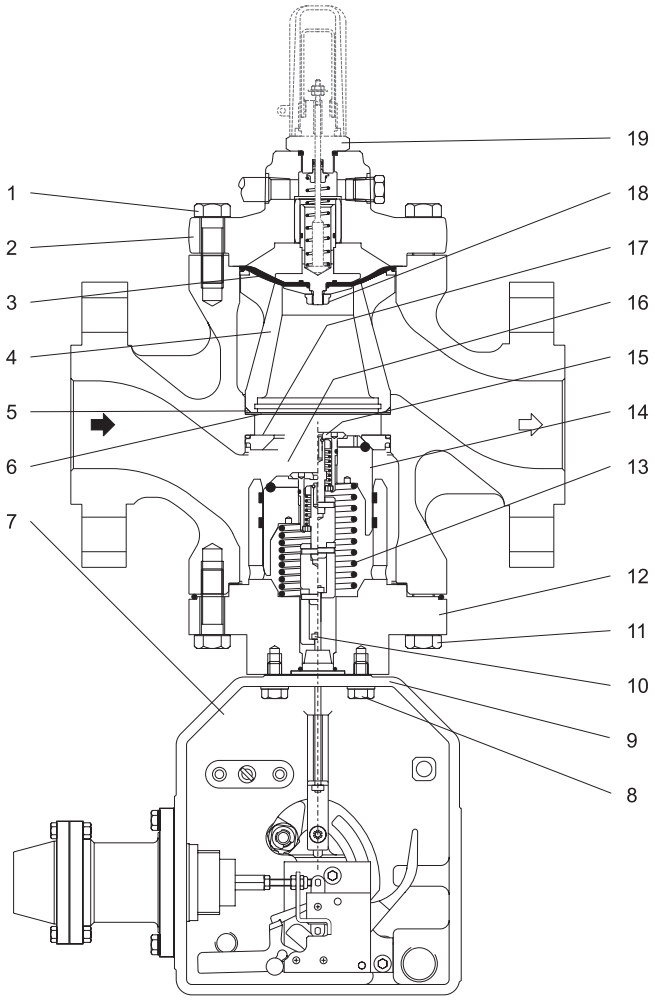
Table 13. *Troubleshooting for Type EZR Regulator*

SYMPTOMS	CAUSE	ACTIONS
If outlet pressure is increases	**Internal leak**	Control the regulator valve plug Control the regulator seat Control the pilot or contact after-sales
If inlet pressure decreases	External leak	Locate and repair leak or contact after-sales
If inlet pressure is stable	The regulator is tightshut	*Increase the set point until tripping occurs* *(without exceeding the outlet limits)*
If the slam shut valve plug will not close	*Operation faulty*	*Control the release relay* *Control the slam shut valve plug* *or contact after-sales*
If the slam shut valve plug closes	*Operation correct*	
Observe the evolution of the outlet pressure (control tightness)		
If the outlet pressure is stable	The valve plug is tightshut	Purge the outlet side of the regulator
Observe the evolution of the outlet pressure (control tightness)		
If the outlet pressure increases	Internal leak	*Control the slam shut valve plug* *Control the slam shut seat* *Control the bypass* *or contact after-sales*
If the outlet pressure is stable	Valve plug is tightshut	

B24A



B24B

Figure 13. *Type EZR Maintenance Schematic*

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SPARE PARTS

Regulator Type	Description	Key N°	Qty	DN 25	DN 50	DN 80	DN 100	DN 150
				197428	197429	197431	197432	197434
EZR E Body	O-ring (nitrile)	7	1	1H2926X0032		1D191706992	1D191706992	
	O-ring	8/11	2	400055		400302		T12050X0012
	O-ring	9	1	400298	400295	400297	400296	19B0359X012
	Diaphragm	10	1	39B2397X012	28B2123X052	39B2726X012	39B3996X012	49B0357X012
	O-ring	12	1	400553		400301		11A8741X052
	O-ring	13	1	400294	400293	400291	400292	
	O-ring	6	1	400513		400290		10A3800X012
	O-ring	-	1					400073
	O-ring	14	1					1D269206992

Regulator Type	Description	Key N°	Qty	DN 25	DN 50	DN 80	DN 100	DN 150
				197421	197422	197424	197425	197427
EZR X body with OS2 Release Relay	O-Ring	1	1	400009	400024	400259	400045	400262
	O-Ring	2/9	2	400298	400295	400297	400296	19B0359X012
	Stem Guide Segment	3	2	401950	401951	401952	401953	401954
	OSE Crimping Bypass	5	1	180977B				
	O-Ring	7	1	1H2926X0032		1D191706992		
	Diaphragm	10	1	39B2397X012	28B2123X052	39B2726X012	39B3996X012	49B0357X012
	Joint	12	1	400553		400301		11A8741X052
	O-Ring	13	1	400294	400293	400291	400292	
	O-Ring	4	1	400527	400263	400258	400260	400261
	O-Ring	8/11	2	400055		400302		T12050X0012
	O-Ring	6	1	400513		400290		10A3800X012
	O-Ring	-	1	400001				400073
	O-Ring	-	1	400724				
	O-Ring	14	1					1D269206992
Safety manometric box				See manual NTAOS2				

Regulator Type	Description	Key N°	Qty	DN 25	DN 50	DN 80	DN 100	DN 150
				197902	197903	197904	197905	197906
EZR X Body	O-ring (nitrile)	9	1	400298	400295	400297	400296	19B0359X012
	O-ring	8	1	400055		400302		T12050X0012
	O-ring	6	1	400513		400290		10A3800X012
	Diaphragm	10	1	39B2397X012	28B2123X052	39B2726X012	39B3996X012	49B0357X012
	O-ring	13	1	400294	400293	400291	400292	1H862306992
	O-ring	12	1	400553		400301		11A8741X052
	O-ring	11	1	400055		400302		T12050X0012
	O-ring	7	1	1H2926X0032		1D191706992		
	O-ring	14	1					1D269206992
	O-ring	1	1	400009	400024	400259	400045	400262
	O-ring	2	1	400298	400295	400297	400296	19B0359X012

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Table 14. *Type EZR Main Valve Spare Parts*

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Regulator Type	Description	Key N°	Qty	DN 25	DN 50	DN 80	DN 100	DN 150
EZR Indicator (optional)	Spare parts kit	24	1	197772		197773		19774

Pilot Type	Description	Key N°	Qty	DN 25	DN 50	DN 80	DN 100	DN 150
PRX/120 or PRX/125	Spare parts kit	4, 5, 14, 17, 18, 22, 25, 28	1	M2200685X12				
FU Filter	Felt	25	1	M0102210X12				
	O-ring	26	1	M6010095X12				

B25B

Table 13. *Type PRX Pilot, FU Filter Spare Parts*

PARTS LIST

Type EZR X Body with OS2 Slam Shut (Figure 14)

Key	Description
1*	O-ring
2*	O-ring
3*	Segment
4*	O-ring
5*	Bypass assembly

Type EZR X and E Body (Figure 15 & 16)

Key	Description
6*	O-ring
7*	O-ring
8*	O-ring
9*	O-ring
10*	Diaphragm
11*	O-ring
12*	O-ring
13*	O-ring
14*	O-ring
15	Bonnet assembly
16	Bottom plug
17	Main spring
18	Top plug
19	Cage
20	Inlet strainer
21	Valve body
22	Flanged lock nut
23	Bonnet pipe plug
24	Travel indicator

Type PRX Pilot (Figure 17)

Key	Description
1	Adjusting screw
2	Locknut
3	Cap
4*	O-ring
5*	O-ring
6	Spring carrier plate
7	Spring
8	Spring cover
9	Spring carrier plate
10	Screw
11	Washer
12	Filter
13	Diaphragm plate
14*	Diaphragm
15	Diaphragm plate
16	Body
17*	O-ring
18*	O-ring
19	Orifice
20	Nut
21	Lower cover
22	Diaphragm plate
23	Stem
24	Nameplate
25*	O-ring
26	Nut
27	Damper adjusting screw
28*	O-ring
29	Plate
30	Nut
31	Damper/Restrictor screw
32	Restrictor adjusting screw
33	Plug
34	Plug

* Spare parts

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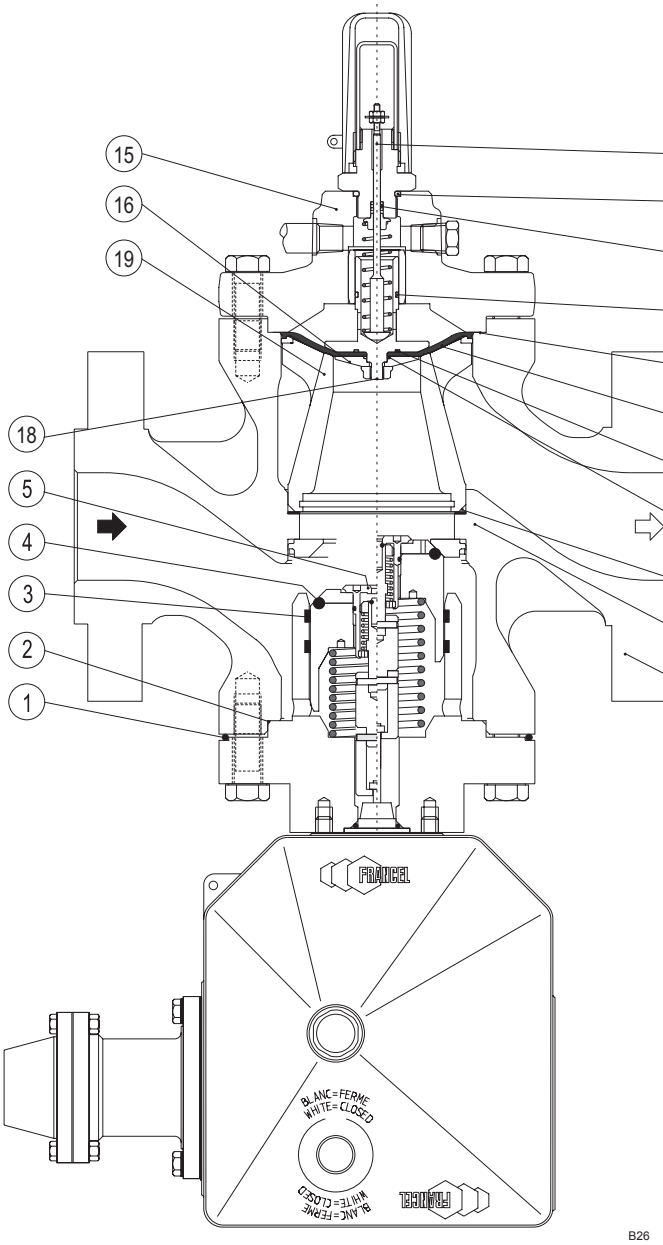

Figure 14. *Type EZR X Body with OS2 Slam Shut*

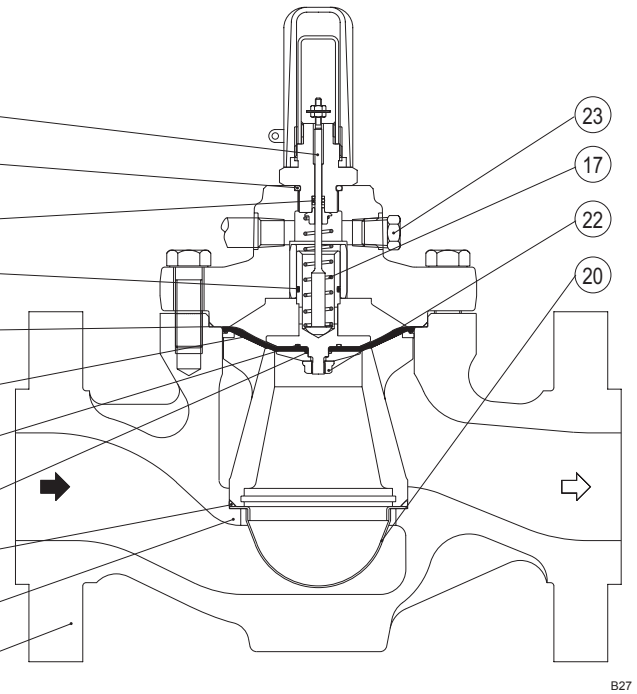

Figure 15. *Type EZR E Body*

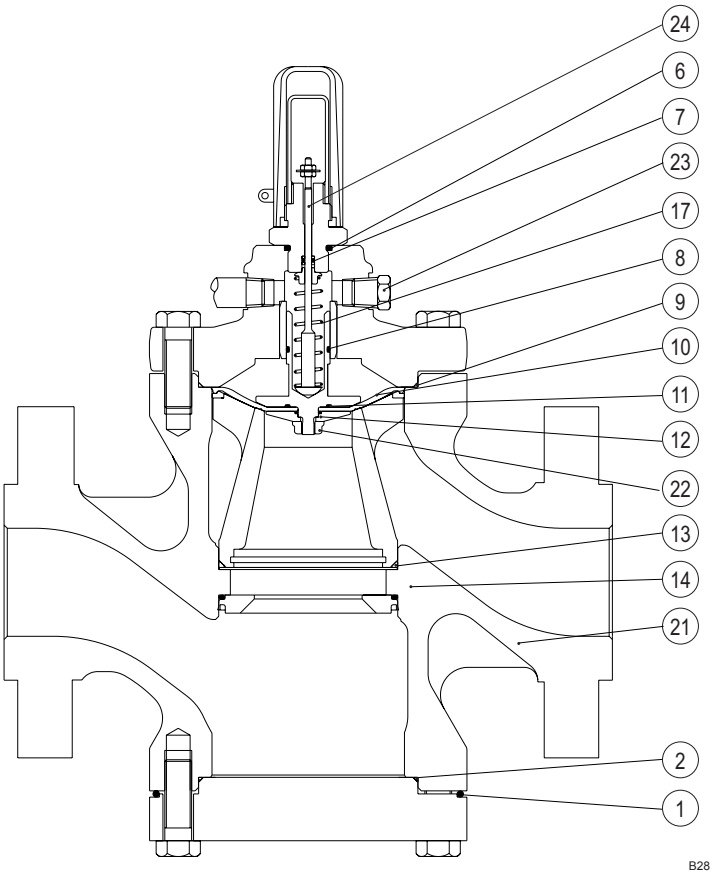

Figure 16. *Type EZR X Body*

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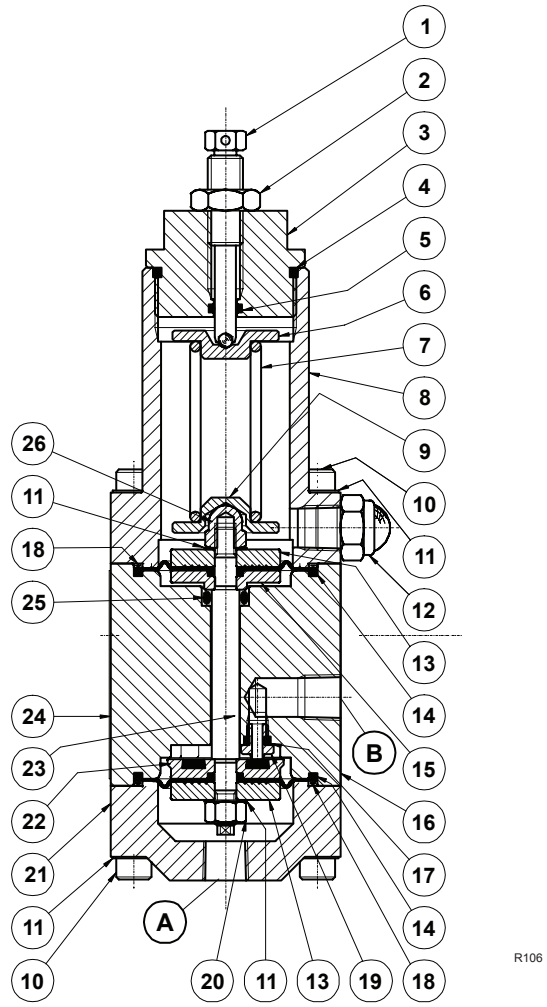
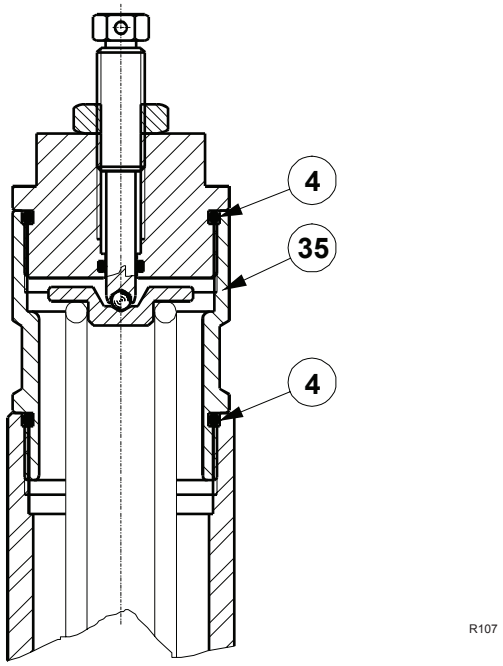
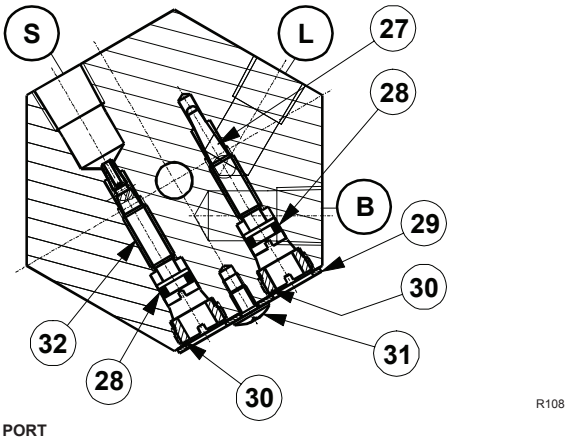


Type PRX/120 or PRX/125

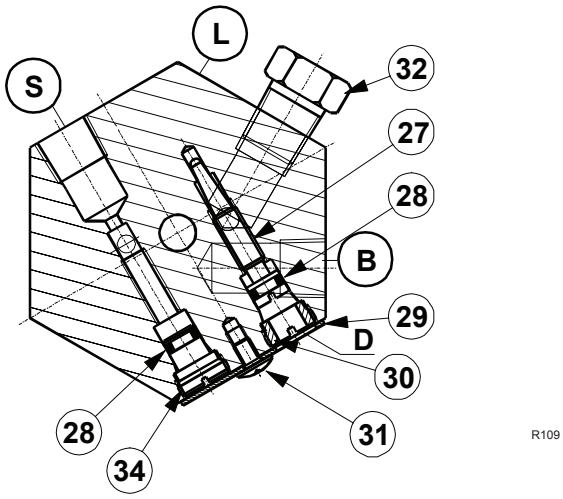


Type PRX/120-AP or PRX/125-AP



S - BLEED PORT
B - SUPPLY PORT
L - LOADING PORT
A - SENSING PORT
D - DAMPER
R - RESTRICTOR

Type PRX/120 or PRX/120-AP



Type PRX/125 or PRX/125-AP

Figure 17. *Type PRX Series Pilots*

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Type FU Filter (Figure 18)

Key	Description
25*	Felt
26*	O-ring

* Spare parts

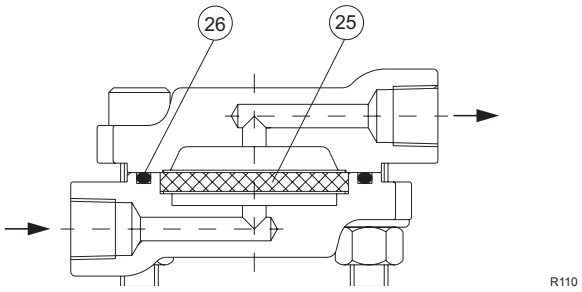

Figure 18. *Type FU Filter*

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